

IV. Risk Assessment

General Description

According to the State and Local Mitigation Planning How-to-Guide published by FEMA, “Risk assessment answers the fundamental question that fuels the natural hazard mitigation planning process: *“What would happen if a natural hazard event occurred in your community or state?”*

“Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards by assessing the vulnerability of people, buildings and infrastructure to natural hazards.

“Risk assessment provides the foundation for the rest of the mitigation planning process. The risk assessment process focuses your attention on areas most in need by evaluating which populations and facilities are most vulnerable to natural hazards and to what extent injuries and damages may occur. It tells you:

- The hazards to which your state is susceptible;
- What these hazards can do to physical , social and economic assets;
- Which areas are most vulnerable to damage from these hazards; and
- The resulting cost of damages or costs avoided through future mitigation projects.”

This Chapter provides a risk assessment for both the state and local level. First we will look at the local jurisdictions.

Local Jurisdiction Vulnerability

A. Review of Local Hazard Mitigation Plans

Currently there are 68 Local Hazard Mitigation Plans that have been approved by the Federal Emergency Management Agency (FEMA) or are in process in some form or another. The following table summarizes local hazard mitigation planning activity through 2004.

Status of Local Mitigation Plans				
FEMA Approved	Conditionally Approved	Under Review by FEMA	Require Updates	Anticipated
12	20	9	13	14

Local jurisdictions and their vulnerability to hazards are identified on a *county-wide basis*, due to the fact that New Hampshire is small in size and the hazards do not vary greatly from one portion of the State to another. The Hazard Analysis in Chapter III, as well as the table on page IV-22, identifies the hazard risk by county.

b. Review of Potential Loss at Local Level

The NH Bureau of Emergency Management provided a grant to the University of New Hampshire (UNH) to conduct an Essential Facilities Survey for every county in the State. UNH assembled a team to inspect, structurally evaluate and photograph essential facilities identified in the HAZUS 99 program. A full report for all facilities is available at the Bureau of Emergency Management and has been provided to the RPC's to be added to the local plans. Based upon the information in the UNH project, the following table summarizes the potential loss of essential facilities by county. Information found on essential facilities during the review of local plans will be incorporated in future updates to this plan.

Local Essential Facilities – Potential Loss Analysis			
County	Building Replacement Cost (In Thousands)	Content Value (In Thousands)	Total (In Thousands)
Belknap	40,645	73,895	114,540
Carroll	34,819	32,860	67,679
Cheshire	294,050	31,341	325,391
Coos	69,323,840	58,358,000	127,681,840
Grafton	376,777	267,599	644,376
Hillsborough	25,559,435	2,444,275	28,003,710
Merrimack	159,761,096	1,543,587	161,304,683
Rockingham	413,798	291,811	705,609
Strafford	194,348	133,933	328,281
Sullivan	22,336	15,595	37,931
TOTAL	256,021,144	63,192,896	319,214,040

Summary of Potential Loss at Local Level:

- As can be seen from the above table, the loss to **ONLY** the essential facilities and their contents for every county in the state is a little over **Three-Hundred Billion dollars**.
- Carroll and Sullivan Counties have the lowest estimated potential loss to their essential facilities.
- Hillsborough County has the highest total potential loss value. A contributing factor to this number is that Hillsborough has the second highest number of communities (31) in the State. Coos and Merrimack Counties also have a noticeably high potential loss value due to the many regional services these counties provide. It is important to note that there are quite a few larger municipalities not included in this study (i.e. Manchester, Plymouth, Laconia, Hampton, etc.) which as noted below may skew the data, resulting in a lower potential loss for the other counties.
- The above table represents a minimum value as each county has communities and facilities in which no data was provided for the project. In addition, many of the communities do not have contents value identified in this study.

State Vulnerability

This section assesses the State's vulnerability to hazards by looking at the following categories:

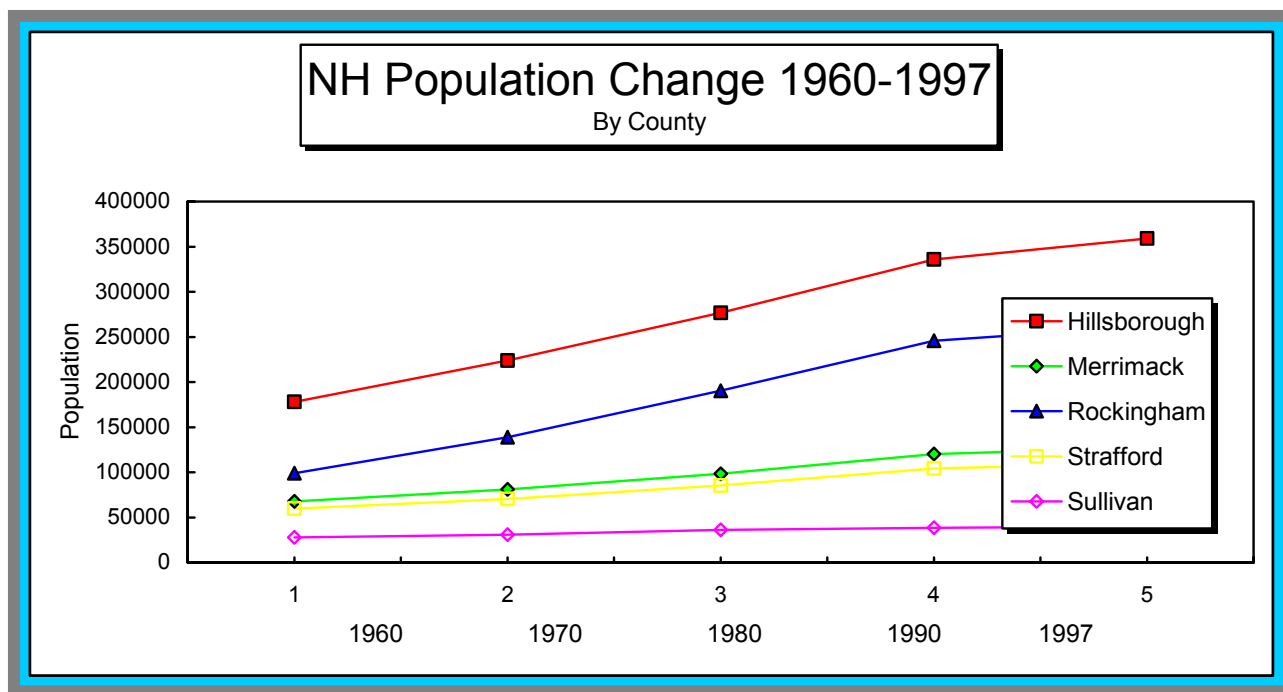
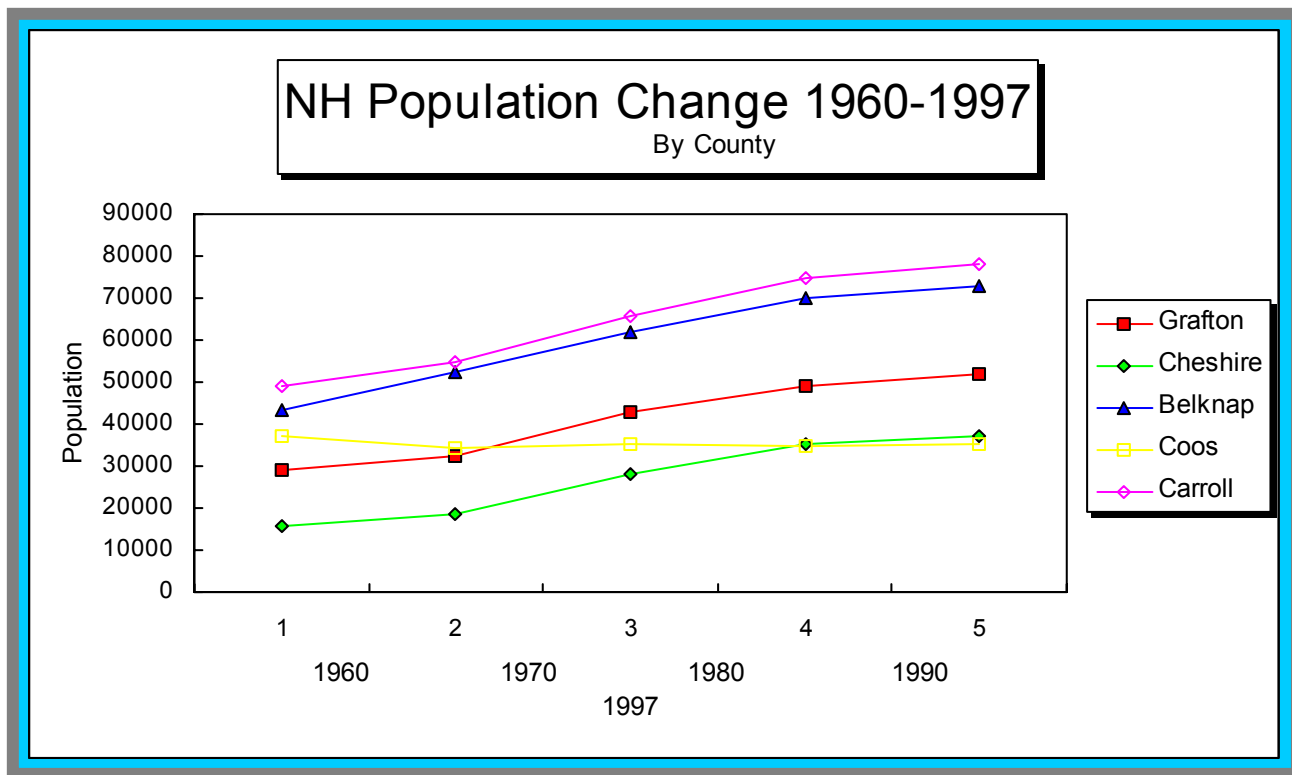
- Population Growth
- County Risk Analysis'; and
- Estimating Potential Losses

A Overview of Population Growth in NH

The chart below indicates that New Hampshire's population more than doubled from 1960 to 2000.

New Hampshire Population by County						
<i>Census Data to 2000, Estimates For 2002</i>						
County	1960	1970	1980	1990	2000	2002
Belknap	28,912	32,367	42,884	49,216	56,325	58,378
Carroll	15,829	18,584	27,931	35,410	43,608	44,128
Cheshire	43,342	52,364	62,116	70,121	73,825	75,618
Coos	37,140	34,291	35,147	34,828	32,936	33,893
Grafton	48,857	54,914	65,806	74,929	81,740	84,047
Hillsborough	178,161	223,941	276,608	336,073	380,841	391,660
Merrimack	67,785	80,925	98,302	120,005	136,225	140,947
Rockingham	99,029	138,951	190,345	245,845	277,359	287,960
Strafford	59,799	70,431	85,408	104,233	112,233	116,086
Sullivan	28,067	30,949	36,063	38,592	40,458	41,283
New Hampshire	606,921	737,717	920,610	1,109,117	1,235,550	1,275,000

As is indicated in the graphs on the following page, the rate of growth in 4 of the 5 most heavily populated counties is expected to continue to increase albeit, at a decreasing rate. In all but one New Hampshire County, the population has risen during the period from 1960 to 1997 (the exception being Coos). In all but two New Hampshire counties, the rise has been such that the population has nearly doubled or has exceeded that increase significantly.



B. Summary of Risk by County

The following pages provide a summary of each hazard, by county. The information found in the local plans will assist in the completion of the County Risk Analysis and will be incorporated in future updates,

BELKNAP COUNTY RISK ANALYSIS

Flooding: The County lies in the upper central portion of the Merrimack River Watershed. Flooding is experienced along the Pemigewasset River on its eastern border and within the Winnepesaukee Lake basin and the Winnepesaukee River and connecting lakes. The Winnepesaukee River drains Lake Winnepesaukee passing through the heart of downtown Laconia through Lake Winnisquam, Silver Lake in Tilton, bifurcating Tilton and Northfield and emptying into the Merrimack.

Effects of “Shove Ice” from lake forming ice are more a threat to property in this county than the effects of River Ice per se. The large lakes in the area form ice seasonally which may impact upon docks, wharfs, boathouses and nearby roads, bridges, culverts and other infrastructure (See Section V for contact information for Cold Regions Research Engineering Laboratory).

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. All the data for this hazard is presented in Section I of this Plan..

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section III of this document).

Landslide: At the time of the submission of this Plan, the State was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Subsidence: Communities such as Laconia and Meredith, which were industrialized in the nineteenth century, have underground canals to facilitate hydro-mechanical power to those preexisting mills. The editor was unable to locate any loss data with respect to this hazard type.

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page III-26 of this document, the county has experienced one known F2 event in the recent past (7/3/1972). The compilation of data from www.tornadoproject.com lists a total of 5 tornadic events (all additional are F 1 events) from 6/24/1960 to 7/23/1995.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. During the recent 1998 Ice Storm, the only failure of a communications tower was in Belknap County. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

CARROLL COUNTY RISK ANALYSIS

Flooding: In the Southern area of the county is Lake Winnepesaukee that feeds the Merrimack River watershed. The remainder of the county includes the Saco River Watershed, nearly in its entirety. Extremely large amounts of rainfall have been recorded in the mountainous areas of the county that contributes to the “flashy” nature of the flooding in the Saco and its tributaries. During the DR-1231-NH event of June-July 1998, the Ossipee Lake was reported to have risen 5 feet, the resulting floodwaters threatening the lake’s dam.

Effects of “Shove Ice” from lake forming ice is a threat to property in the Southern part of this county. The large lakes in the area form ice seasonally which may impact upon docks, wharfs, boathouses and nearby roads, bridges, culverts and other infrastructure. The Rivers to the north are vulnerable to River Ice conditions. Erosion accelerated by the destabilizing effects on riverbanks is a significant issue all along the Saco and other of the State’s Rivers (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the drought events of 1960 and 2000-2002. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 ice storm. Aside from the data presented in Section III, the State was unable to locate any county specific data with respect to this hazard type.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section III, Earthquake).

Landslide: At the time of the submission of this Plan, the State was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Subsidence: At the time of the submission of this Plan, the State was unable to locate any county specific data with respect to this hazard type.

Radon: From available data, it would appear that Radon is a relatively High risk in this county (See Section III, Radon, for more details).

Tornadic Activity: As may be gleaned from the data presented Section III, of this document, the county has experienced one known F2 event in the recent past (7/18/1963). The data from www.tornadoproject.com lists a total of 7 tornadic events (all additional are F 1 or less events) from 7/18/1986 to 8/7/1986.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State’s exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a moderate risk to avalanche due to the presence of slopes ranging from 25 to 50 degrees.

CHESHIRE COUNTY RISK ANALYSIS

Flooding: The County in the Southwestern corner of the State and is bounded by the Connecticut River to the West. The City of Keene lies in the center of the county and encompasses a significant area of the floodplain of the upper Ashuelot River. The Ashuelot also contributes to flooding in the towns of Winchester and Hinsdale

River Ice related flooding along the Connecticut is a periodic issue in Chesterfield among others. Erosion accelerated by the destabilizing effects on riverbanks is a significant issue all along the Connecticut and other of the State's Rivers. Additionally, River Ice may directly impact upon docks, wharfs, boathouses and nearby roads, bridges, culverts and other infrastructure. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally.

Landslide: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Some land formations along the Connecticut are generally considered to be conducive to landslide activity. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: Risk from tornadoes is considered to be high in this county. As may be gleaned from the data presented on page of this document, the county has experienced 5 known F2 events in the past. The compilation of data from www.tornadoproject.com lists a total of 13 tornadic events (all additional are F 1 or less events) from 8/27/1959 to 5/31/1991.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes. The 1938 event devastated this county that received a direct hit.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type

Avalanche: This County has a low risk for avalanche hazards.

COOS COUNTY RISK ANALYSIS

Flooding: The County is divided with the Connecticut River watershed to the West and the Androscoggin River Watershed to the East. The Connecticut River borders the county from its Southwestern most tip to the Canadian Border (near Stewartstown) where it is then bordered by the forests of the Province of Quebec, which also borders it to the North. In the West, it is bordered by the forests of Maine. The White Mountains to the South receive considerable amounts of rainfall and the snowpack which forms in both the high and mid elevations may present a significant flood hazard seasonally. The weather patterns north of the White Mountains may vary considerably from the rest of the State and this has led to significant losses from flooding which have gone “undeclared” as they were not in synchronicity with the declared losses in the Southern areas of the State. Such was the case surrounding the recent DR-1231-NH Declared event.

Flooding from River Ice is a significant issue throughout this county and effects of flooding as well as direct impacts on structures have been recorded in Lancaster, from the Israel River and in Gorham, from the Androscoggin, Moose and Peabody Rivers among other areas. Erosion accelerated by the destabilizing effects on riverbanks is a significant issue. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960’s, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the heavy forest cover countywide, this hazard type is of particular concern during dry periods.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. Areas to the north of the county lie close to the St. Lawrence River Valley and areas of very significant seismicity. Toward the Southeastern portion of the county is the Ossipee Range, the center of the highest seismicity within the boundary of the State.

Landslide: Indications are that the land formations throughout large areas of this county predispose some areas to this hazard type. At the time of the submission of this Plan however, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a relatively High risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page of this document, the county has experienced one known F2 event in the recent past (5/5/1929). The data from www.tornadoproject.com lists a total of 5 tornadic events (all additional are F 1 or less events) from 7/9/1956 to 7/2/1994.

Hurricane: The County has experienced high winds from some hurricane events but is at amore significant risk to flooding from the associated rainfall from hurricanes.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State’s exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has the highest risk for avalanche hazards due to heavy snowfall amounts and slopes ranging from 25 to 50 degrees.

GRAFTON COUNTY RISK ANALYSIS

Flooding: The County is bordered to the West and North by the Connecticut River, to the Northwest by the White Mountains and to the South by Sullivan and Belknap counties. Communities along the Connecticut River experience periodic flooding and the snowpack and rainfall captured by the White Mountains contributes to flash flood conditions along the Pemigewasset (Pemi) and the Ammonosuc and their tributaries. The Pemi, Baker, Beebe, Mad and other rivers, which drain the White Mountains, are well known to be extremely “flashy.”

River Ice related flooding along the Connecticut is a periodic issue in Lebanon, Littleton and several of the smaller communities along the River. Erosion accelerated by the destabilizing effects on riverbanks is a significant issue all along the Connecticut and other of the State’s Rivers. Additionally, River Ice may directly impact upon docks, wharfs, boathouses and nearby roads, bridges, culverts and other infrastructure. River Ice is an issue for the Town of Plymouth, which lies at the confluence of the Pemi and Baker Rivers. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960’s, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the heavy forest cover countywide, this hazard type is of particular concern during dry periods.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally.

Landslide: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Some land formations along the Connecticut are generally considered to be conducive to landslide activity. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page of this document, the county has experienced 5 known F2 events in the past. The compilation of data from www.tornadoproject.com lists a total of 8 tornadic events (6 additional are F 1 or less events) from 7/14/1963 to 6/11/73.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Additional research is ongoing. See Section III for an overview of the State’s exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

HILLSBOROUGH COUNTY RISK ANALYSIS

Flooding: The most heavily populated county, it is bordered to the South by Massachusetts and comprises much of the southern and western Merrimack River Watershed. The river flows through the eastern portion of this county through the heavily populated cities of Manchester, Merrimack and Nashua. Urban development and land use exacerbate storm water runoff issues in the eastern areas of the county while the western areas are moderately to heavily forested. Flooding in the Western portions of the county periodically occurs along the Contoocook from Peterborough to Hillsborough.

Flooding from river ice is less significant a threat in this region than in other portions of the State but the communities in the Western regions, principally along the Contoocook, experience this hazard periodically. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the heavy forest cover countywide, this hazard type is of particular concern during dry periods.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section III of this document).

Landslide: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Some land formations along the Merrimack River are generally considered to be conducive to landslide activity. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: Risk from tornadoes is considered to be high in this county. As may be gleaned from the data presented on page of this document, the county has experienced 7 known F2 events and one F 3 event. The compilation of data from www.tornadoproject.com lists a total of 18 tornadic events (all additional are F 1 or less events) from 7/27/1956 to 6/16/1986.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes. The 1938 event devastated this county, which received a direct hit.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

MERRIMACK COUNTY RISK ANALYSIS

Flooding: As its name reflects, this county lies almost exclusively in the Merrimack River Watershed. At the confluence of the Pemigewasset, the Winnepesaukee and the Merrimack, the Town of Franklin has seen such significant flooding so as to be the site of a U.S. Army Corps of Engineers Flood Control Dam. Flash flooding along the Contoocook and its tributaries is repetitive. Related flooding is experienced at the confluence of the Contoocook and Merrimack during peak events.

Flooding from river ice is less significant a threat in this region than in other portions of the State but the communities in the Western regions, principally along the Contoocook, experience this hazard periodically. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets, which are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county (See Section III).

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the heavy forest cover countywide, this hazard type is of particular concern during dry periods.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section II., page 38 of this document).

Landslide: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Some land formations along the Merrimack River are generally considered to be conducive to landslide activity. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page of this document, the county has experienced 5 estimated F2 events in the past of record. The compilation of data from www.tornadoproject.com lists a total of 3 additional tornadic events (all additional are F 1 or less events) from 7/12/1967 to 8/15/1976.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

ROCKINGHAM COUNTY RISK ANALYSIS

Flooding: The second most heavily populated county, it is bordered to the South by Massachusetts. The county is divided between the southern portion of the Piscataqua and the southeastern Merrimack River Watersheds. The region is primarily low rolling hills and floodplain and consequently, inundation flooding is typical. The county also possesses the only direct seacoast in the State and is therefore positioned with exposure to coastal flooding damage from Hurricane, Nor'easter and Tsunami.

Flooding from river ice has not proven to be a significant hazard in this County in the recent past. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the moderating effects on the seasonal temperatures from the southern latitude and coastal exposure, the county is viewed as having a limited risk from this hazard type. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets, which are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Given the salt marsh environments in the county, Wildland Fire hazards related to *Phragmites Australis* along the coast are viewed as significant.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section II., page 38 of this document). Additionally, it is believed that the largest earthquake of record in New England was the 1755 "Cape Ann" event, just offshore of the NH coast.

Landslide: This county, due to its' low elevation is not prone to landslide hazards.

Radon: From available data, it would appear that Radon is a relatively High risk in this county (See Section III for more details).

Tornadic Activity: Risk from tornadoes is considered to be high in this county. As may be gleaned from the data presented on page of this document, the county has experienced 6 known F2 events and one F 3 event in the past. The compilation of data from www.tornadoproject.com lists a total of 4 additional tornadic events (all additional are F 1 or less events).

Hurricane: The County has experienced high winds from some hurricane events and is positioned to experience storm surge related flooding, beach erosion and significant wind damage from these events.

Downburst: As recorded in the appropriate subsection of Section III. Of this document, the community of Stratham received a Presidential Declaration from Downburst activity. As with tornadoes, this is perceived to be a significant hazard in this County. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has NO risk for avalanche hazards.

STRAFFORD COUNTY RISK ANALYSIS

Flooding: Bordered to the North and West by the Salmon Falls and Piscataqua Rivers, the county lies primarily in the Piscataqua River Watershed. The region is primarily low rolling hills and floodplain and consequently, inundation flooding is typical. The county also possesses tidal river, estuarine and salt marsh environments. Therefore, these areas are positioned with exposure to coastal flooding damage from Hurricane, Nor'easter and possibly, Tsunami.

Flooding from river ice has not proven to be a significant hazard in this county in the recent past. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the moderating effects on the seasonal temperatures from the southern latitude and coastal exposure, the county is viewed as having a limited risk from this hazard type. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the salt marsh environments in the county, Wildland Fire hazards related to Phragmites Austrails are viewed as significant.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally. The county is in an area of particularly high seismicity that is evident in a crescent of historical events beginning in the Ossipee Range and following the general contour of the Merrimack River Valley (See Section III of this document). Additionally, it is believed that the largest earthquake of record in New England was the 1755 "Cape Ann" event, just offshore of the NH coast.

Landslide: This county, due to its' low elevation is not prone to landslide hazards

Radon: From available data, it would appear that Radon is a relatively High risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page of this document, the county has experienced 5 known F2 events in the past. The compilation of data from www.tornadoproject.com lists a total of 2 additional tornadic events (both additional are F 1 or less events).

Hurricane: The County has experienced high winds from some hurricane events and is positioned to experience storm surge related flooding, beach erosion and significant wind damage from these events.

Downburst: As recorded in the appropriate subsection of Section III. Of this document, the neighboring community of Stratham received a Presidential Declaration from Downburst activity. As with tornadoes, this is perceived to be a significant hazard in this county. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

SULLIVAN COUNTY RISK ANALYSIS

Flooding: The county in the Southwestern area of the State and is bounded by the Connecticut River to the West. The City of Claremont lies in the center of the county along the Connecticut River and encompasses a significant area of the floodplain of the upper Sugar River.

River ice related flooding along the Connecticut is a periodic issue in Charlestown among others. Erosion accelerated by the destabilizing effects on riverbanks is a significant issue all along the Connecticut and other of the State's Rivers. Additionally, River Ice may directly impact upon docks, wharfs, boathouses and nearby roads, bridges, culverts and other infrastructure. (See Section V for contact information for Cold Regions Research Engineering Laboratory)

Drought: The County was impacted by the Drought event of the 1960's, as was the rest of the State. The county hosts significant agricultural and livestock assets that are negatively impacted by such events. At the time of the preparation of this Plan, the editor has located no specific data as to the losses from Drought events for this county.

Wildfire: Significant debris remains in the forests from the 1998 event. Aside from the data presented in Section I. of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Given the heavy forest cover countywide, this hazard type is of particular concern during dry periods.

Earthquake: New Hampshire lies in a zone of Moderate seismic vulnerability generally.

Landslide: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. Additional research is ongoing. Some land formations along the Connecticut are generally considered to be conducive to landslide activity. (This has been identified as a Staff Project in Chapter VII)

Radon: From available data, it would appear that Radon is a Moderate risk in this county (See Section III for more details).

Tornadic Activity: As may be gleaned from the data presented on page of this document, the county has experienced 4 known F2 events (estimated) in the past. The compilation of data from www.tornadoproject.com lists 4 additional tornadic events (all additional are F 1 or less events) from 10/24/1955 to 7/16/83.

Hurricane: The County has experienced high winds from some hurricane events but is at a more significant risk to flooding from the associated rainfall from hurricanes. The 1938 event impacted this county that received a near direct hit.

Downburst: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Lightning: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. (This has been identified as a Staff Project in Chapter VII)

Severe Winter Weather: At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type. See Section III for an overview of the State's exposure. (This has been identified as a Staff Project in Chapter VII)

Ice Storm: Significant debris remains in the forests from the 1998 event. At the time of the submission of this Plan, the editor was unable to locate any county specific data with respect to this hazard type.

Avalanche: This County has a low risk for avalanche hazards.

C. Estimating Statewide Potential Losses

The manmade hazards that can affect New Hampshire were identified in Chapter III. Now we will identify state owned critical facilities that are vulnerable to those risks. For the purposes of a state assessment this section will identify the value of all state owned buildings and then inventory the state owned critical facilities.

The following tables summarize the value of state owned real property per county as obtained from the *State Owned Real Property Supplement from the 2001 Annual Financial Report for the State of New Hampshire*.

Belknap County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Dept. of Safety	\$462,241	No data
Dept. of Resources & Economic Dev.	289,822	No data
NH Vet. Home	7,544,421	No data
Environmental Srvc.	50,449	No data
Water Resources Council	15,000	No data
Dept. Corrections	8,452,979	No data
NHCTC	2,918,743	No data
Fish & game	739,753	No data
Dept. of Transportation	1,532,061	No data
TOTAL	\$22,005,469	

Carroll County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Admn Services	\$338,800	No data
Dept. of Safety	423,823	No data
DRED	1,127,827	No data
Environmental Srvc.	500	No data
Water Resources Council	15,000	No data
Fish & game	8,689	No data
Dept. of Transportation	1,354,132	No data
TOTAL	3,268,771	

Cheshire County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$1,095,831	No data
Dept. of Safety	521,449	No data
DRED	652,158	No data
Fish & game	405,958	No data
Dept. of Transportation	1,799,549	No data
TOTAL	4,474,945	

Coos County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$1,898,694	No data
Dept. of Safety	345,358	No data
Employment Security	372,814	No data
DRED	6,339,720	No data
Water Resources Council	28,000	No data
Dept. Corrections	30,322,217	No data
NHCTC	3,157,401	No data
Fish & game	1,051,019	No data
Dept. of Transportation	1,756,991	No data
TOTAL	45,272,214	

Grafton County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$3,699,986	No data
Admn Services	3,446,177	No data
DRED	797,196	No data
Environmental Svc.	2,500	No data
Water Resources Council	1,500	No data
Fish & game	323,160	No data
Liquor Commission	81,147	No data
Elderly Home	11,600,260	No data
Dept. of Transportation	2,779,373	No data
TOTAL	29,906,064	

Hillsborough County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$6,938,827	No data
Admn Services	17,235,726	No data
Dept. of Safety	552,005	No data
Employment Security	1,168,128	No data
DRED	1,406,075	No data
Youth Dev. Serv.	4,577,580	No data
Environmental Svc.	5,478,306	No data
Dept. Corrections	1,595,222	No data
NHCTC (2 campus')	16,144,987	No data
Fish & game	556,480	No data
Liquor Commission	1,127,712	No data
Ofc. of Alcohol & Drug	225,875	No data
Dept. of Transportation	4,118,051	No data
TOTAL	61,124,974	

Merrimack County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$15,680,712	No data
Admn Services	43,731,980	No data
Dept. of Safety	16,250,205	No data
Employment Security	1,768,003	No data
Historical Resources	33,000	No data
DRED	6,170,371	No data
Youth Dev. Serv.	3,961,600	No data
Environmental Srvc.	23,236,376	No data
Water Resources Council	19,294	No data
Dept. Corrections	56,165,668	No data
NHCTC & NHTI	19,341,534	No data
Christa McCauliffe Planetarium	2,820,658	No data
Fish & game	3,434,047	No data
Liquor Commission	3,736,293	No data
Police Stds. & Training	6,357,929	No data
Div. of Mental Health	9,916,934	No data
NH Hospital	32,166,333	No data
Dept. of Transportation	8,710,797	No data
TOTAL	253,501,734	

Rockingham County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$1,168,561	No data
Admn Services	11,713,733	No data
Dept. of Safety	227,399	No data
Employment Security	1,117,322	No data
DRED	6,172,736	No data
NH Port Authority	3,251,480	No data
NHCTC	6,525,153	No data
Fish & game	646,668	No data
Liquor Commission	9,564,342	No data
Dept. of Transportation	5,043,398	No data
TOTAL	45,430,792	

Strafford County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$4,724,407	No data
Admn Services	1,430,931	No data
Dept. of Safety	428,896	No data
DRED	9,780	No data
Environmental Srvc.	21,104	No data
Fish & game	908,188	No data
Dept. of Transportation	2,292,253	No data
TOTAL	9,815,559	

Sullivan County State Owned Real Property		
Function	Value of Buildings	Value of Contents
Adjutant General	\$773,246	No data
Admn Services	1,667,817	No data
DRED	56,525	No data
NHCTC	2,554,872	No data
Fish & Game	1,315	No data
Dept. of Transportation	471,664	No data
TOTAL	5,525,439	

Summary of State Owned Facilities – Potential Loss	
County	Value of Buildings
Belknap	22,005,469
Carroll	3,268,771
Cheshire	4,474,945
Coos	45,572,214
Grafton	29,906,064
Hillsborough	61,124,974
Merrimack	253,501,734
Rockingham	45,430,792
Strafford	9,815,559
Sullivan	5,525,439
TOTAL	480,625,961

Summary of State Owned Real Property:

- The total value of all the state owned buildings is just over \$480 million dollars.
- The three counties with the highest level of risk (as derived in Table 4.2) comprise more than half of the total value of state owned buildings (\$360,057,500).
- The three counties with the highest level of risk contain more than half of the state's populations (789,795)
- There is no detailed information available to determine the potential loss to state facilities on a hazard specific basis. This requires an extensive assessment and is not within the funding capabilities of this plan update
- Further information regarding state owned facilities (building types, building use and number of staff) is being gathered and should be available at the next revision of this plan
- The facilities provided in the following inventory are crucial to the response capabilities of the state and therefore have an inherent value that cannot be assigned.

The table on the following page provides an inventory of state owned critical facilities that are vital in the event of a natural or man-made disaster and therefore have an inherent value that cannot be assigned. Critical facilities in New Hampshire are susceptible to any of the twelve hazards described in Chapter 3, however, the majority of them are not geographically specific. The only hazard that has defined boundaries of risk is Flooding. Utilizing FEMA Flood Insurance Maps, Critical Facilities located in the 100-year floodplain can be identified, as is shown in the following table.

State of New Hampshire Inventory of State-Owned Critical Facilities							
Facility	Name/Location	Owner	Size (sq.ft.)	Building Value	In 100-year Floodplain	Building Type	# of Occupants
Capital Building	State House & Annex – Concord	Admn. Services	161,348	5,497,552	No		No Data Avail.
Primary EOC	Bureau of Emergency Management	Dept. of Safety	27,840	439,900	No		33
Secondary EOC	NH National Guard Training Center, Center Stafford, NH	Adjutant Gen.	29,155	2,248,065	No		No Data Avail.
State Police	Hayes Building	Dept. of Safety	117,113	7419396	No		1,450
	Airport Building	Dept. of Safety	8210	230,000	No		No Data Avail.
	State Police Troop Station D - Concord	Dept. of Safety	Not Avail.	101,370	No		41
	State Police Troop Station B- Milford	Dept. of Safety	5,810	671,408	No		52
	State Police Troop Station E - Tamworth	Dept. of Safety	7865	473,226	No		No Data Avail.
	State Police Troop Station F – Carroll	Dept. of Safety	7533	373560	No		No Data Avail.
	Police Standards & Training Facility	Dept. of Safety	33,400	4,357,929	Land/Yes		24
Fire Facilities	Richard M. Flynn Fire Academy	Dept. of Safety	Not Avail.	4,708,605	No		No Data Avail.
	Fire Standards & Training Comm. Bldg.	Dept. of Safety	Not Avail.	359,899	No		No Data Avail.
	Fire Standards & Training Dormitory	Dept. of Safety	Not Avail.	2,610,674	No		No Data Avail.
	Ladder Training Tower	Dept. of Safety	Not Avail.	406,418	No		No Data Avail.
	Aircraft Rescue Facility	Dept. of Safety	Not Avail.	730,812	No		No Data Avail.
Communications	State Police Radio – Clinton Street	Dept. of Safety	1,680	85,000	No		No Data Avail.
	State Police Radio System Towers – on various NH Mts.	Dept. of Safety	N/A	4,979,119	No		No Data Avail.
	State Police Microwave System	Dept. of Safety	N/A	2,400,000	No		No Data Avail.
Hospital	NH Veterans home	NH Veterans Home	Not Avail.	7,544,421	No		No Data Avail.
	NH Hospital – Hospital Grounds	Div. of Mental Health	337,611	9,920,911	No		857
	NH Hospital	NH Hospital	750,496	3,841,108	No		
Public Works Facilities	District 1 Facilities	Dept. Transport.	208421	2,998,328	Unknown		1,273
	District 2 Facilities	Dept. Transport.	191,885	1,966,836	Unknown		536
	District 3 Facilities	Dept. Transport.	175,264	2,673,896	Unknown		499
	District 4 Facilities	Dept. Transport.	149,958	3,159,511	Unknown		199
	District 5 Facilities	Dept. Transport.	177,457	3,813,812	Unknown		230
	District 6 Facilities	Dept. Transport.	100,891	1,833,041	Unknown		200
Transportation	Portsmouth Port Authority	NH Port Authority	50,000	2,619,480	Land/Yes		No Data Avail.

Inventory of State-Owned Critical Facilities Continued							
Facility	Name/Location	Owner	Size (sq.ft.)	Building Value	In 100-year Floodplain	Building Type	# of Occupants
Prison Facilities	Berlin Correctional Facility	Dept. Corrections	Not Avail.	30,604,945	No		180
	NH State Prison: Concord Compound (all major bldgs.)	Dept. Corrections	N/A	49,019,617	No		568
	NH State Women's Prison	Dept. Corrections	8,350	1,940,178	No		41
	Lakes Region Facility	Dept. Corrections	335,793	9,712,879	Land/Yes		113
Education Facilities	NHCTC System Office-Concord	NHCTC	63,000	619,972	Land/Yes		47
	NHCTC – Manchester Campus	NHCTC	145,000	8,450,442	No		475
	NHCTC – Stratham Campus	NHCTC	92,000	6,992,953	No		311
	NH Technical Institute – Concord	NHCTC	213,457	20,788,623	Land/Yes		890
	NHCTC – Berlin Campus	NHCTC	94,513	3,484,201	Yes		298
	NHCTC – Laconia Campus	NHCTC	60,000	2,953,743	No		240
	NHCTC – Claremont Campus	NHCTC	68,698	2,594,823	No		257
	NHCTC – Nashua Office	NHCTC	106,738	8,134,829	No		356
Historic Treasures	Contoocook Covered Railroad Bridge	Historical Res.	N/A	33,000	Yes		n/a
	Native American Burial Ground-Shelburne	Historical Res.	N/A	7,800	Unknown		n/a

State Risk Assessment Summary

In order to provide a state risk assessment utilizing all of the previous data and information, a Vulnerability Level for each county is assigned values for:

- Total **value** of state owned buildings by county; and
- Total **population** by county.

Value of Bldgs in Millions	Weighted Value in Points
1-25	1
25-50	2
50-75	3
75-100	4
100-125	5
125-150	6
150-175	7
175-200	8
200-225	9
225-250	10
250-275	11

Population in Thousands	Weighted Value in Points
0-25	1
25-50	2
50-75	3
75-100	4
100-125	5
125-150	6
150-175	7
175-200	8
200-225	9
225-250	10
250-275	11
275-300	12
300-325	13
325-350	14
350-375	15

Total Weighted Pts (Value of Bldg + Population)	Vulnerability Level
1-5 pts	Low
6-10 pts	Medium
10+ pts	High

By weighting both the building value and population, each county is assigned a Vulnerability Level, as seen in Table 4.2 on the next page. In addition you will find Table 4.1 which identifies the hazard risk (or probability of occurring) by county. By evaluating the two tables you can compare each county's vulnerability with its' risk to the 12 different hazards that occur in New Hampshire.

In summary, the counties of Hillsborough, Merrimack and Rockingham have a high vulnerability due to large population concentration and high value of state owned buildings as well as high risk to flooding, wildfire, tornadoe/downburst, and severe winter weather. Grafton and Strafford counties have a medium vulnerability with a high risk to flooding, wildfire, severe winter weather, and high risk to hurricane and radon in Strafford County only. The remaining counties, Coos, Belknap, Cheshire, Sullivan and Carroll, have a low vulnerability with the predominate risks being flood, wildfire and severe winter weather.

Table 4.1 - Hazard Risk by County

County	Flood	DamFailure	Drought	WildFire	Earthquake	Landslide	Radon	Tornado & DwnBrst	Hurricane	Lightning	Sev.Winter	Avalanche
Belknap	H	L	M	H	M+	L	M	M	M	M	H	L
Carroll	H	L	M	H	M+	M	H	M	M	M	H	M
Cheshire	H	L	M	H	M	M	M	H	M	M	H	L
Coos	H	L	M	H	M+	H	H	M	L	M	H	H
Grafton	H	L	M	H	M	M	M	M	L	M	H	L
Hillsborough	H	L	M	H	M+	M	M	H	M	M	H	L
Merrimack	H	L	M	H	M+	M	M	H	M	M	H	L
Rockingham	H	L	M	H	M+	M	H	H	H	M	H	N
Strafford	H	L	M	H	M+	M	H	M	H	M	H	L
Sullivan	H	L	M	H	M	M	M	M	M	M	H	L

Table 4.2 - Vulnerability Level by County

County	Total Value of State Owned Buildings	Population	Total Weighted Pts.	Vul. Level
Hillsborough	61,124,974	374,177	18	High
Merrimack	253,501,734	130,476	17	High
Rockingham	45,430,792	285,142	14	High
Grafton	29,906,064	80,800	6	Medium
Strafford	9,815,559	113,409	6	Medium
Coos	45,272,214	35,442	4	Low
Belknap	22,005,469	53,753	4	Low
Cheshire	4,474,945	73,989	4	Low
Sullivan	5,525,439	40,521	3	Low
Carroll	3,268,771	41,088	3	Low
TOTAL	480,325,961	1,228,797		